

Abstract of the Disclosure

REDUCED STRESS ROTATIONAL COUPLING AND A METHOD OF
USING SAME

The present invention relates generally to rotational couplings that couple a rotor, or driven member, to a rotating shaft. The present invention reduces the stress within a rotational coupling by distributing a driving force from a coupling over a planar contact area on the rotor. The rotor is coupled to a rotating shaft via a coupling that can include a pin. The coupling includes a drive surface that is connected to, but radially separated from, the rotating shaft. An inner surface of the rotor includes at least one contact surface, and the coupling includes at least one drive surface. A portion of the coupling including the drive surface can be comprised of a stronger material than a portion of the rotor that includes the contact surface. The drive surface and the contact surface contacting over a planar contact area, over which the driving force from the shaft is distributed.